

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

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| Applicant's or agent's file reference 99-F-054PCT | FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416) | |
| International application No. PCT/JP99/06309 | International filing date (day/month/year) 12 November 1999 (12.11.99) | Priority date (day/month/year) 12 November 1998 (12.11.98) |
| International Patent Classification (IPC) or national classification and IPC C07K 14/47, C12N 15/12, C07K 16/18, C12P 21/08 | | |
| Applicant JAPAN SCIENCE AND TECHNOLOGY CORPORATION | | |

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| <p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>3</u> sheets, including this cover sheet.</p> <p><input type="checkbox"/> This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of _____ sheets.</p> | |
| <p>3. This report contains indications relating to the following items:</p> <p>I <input checked="" type="checkbox"/> Basis of the report</p> <p>II <input type="checkbox"/> Priority</p> <p>III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p>IV <input type="checkbox"/> Lack of unity of invention</p> <p>V <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p>VI <input type="checkbox"/> Certain documents cited</p> <p>VII <input type="checkbox"/> Certain defects in the international application</p> <p>VIII <input type="checkbox"/> Certain observations on the international application</p> | |

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| Date of submission of the demand 12 June 2000 (12.06.00) | Date of completion of this report 01 February 2001 (01.02.2001) |
| Name and mailing address of the IPEA/JP | Authorized officer |
| Facsimile No. | Telephone No. |

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/JP99/06309

I. Basis of the report

1. With regard to the **elements** of the international application:*

- ☒ the international application as originally filed
- ☐ the description:
 pages _____, as originally filed
 pages _____, filed with the demand
 pages _____, filed with the letter of _____
- ☐ the claims:
 pages _____, as originally filed
 pages _____, as amended (together with any statement under Article 19
 pages _____, filed with the demand
 pages _____, filed with the letter of _____
- ☐ the drawings:
 pages _____, as originally filed
 pages _____, filed with the demand
 pages _____, filed with the letter of _____
- ☐ the sequence listing part of the description:
 pages _____, as originally filed
 pages _____, filed with the demand
 pages _____, filed with the letter of _____

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

- These elements were available or furnished to this Authority in the following language _____ which is:
- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☒ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☒ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/fig _____

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/JP99/06309

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

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|-------------------------------|--------|------------|-----|
| Novelty (N) | Claims | 1-3,6-9,12 | YES |
| | Claims | 4,5,10,11 | NO |
| Inventive step (IS) | Claims | 1-3,6-9,12 | YES |
| | Claims | 4,5,10,11 | NO |
| Industrial applicability (IA) | Claims | 1-12 | YES |
| | Claims | | NO |

2. Citations and explanations

Claims 4, 5, 10 and 11

The subject matters of claims 4 and 10 describe, "a DNA fragment consisting of a partial sequence of the base sequence represented by SEQ ID NO:2 (or 4)," and describes 10 bp for "partial," without describing the function of the DNA fragment at all.

Document 1 (Genome Research, (1997), Vol. 7, No. 4, pages 353-358) cited in the first written opinion describes (1) a DNA having a base sequence perfectly agreeing with the base sequence ranging from the 1st to 1320th of the base sequence represented by SEQ ID NO:2 in the specification of the present application, and (2) a recombinant vector having the DNA integrated, and document 2 (Analytical Biochemistry, (1996), Vol. 236, No. 1, pages 107-113) describes (1) a DNA having a base sequence of about 70% in homology with the base sequence ranging from the 61st to 1998th of the base sequence represented by SEQ ID NO:4, and (2) a recombinant vector having the DNA integrated.

Therefore, the subject matters of claims 4, 5, 10 and 11 are the same as the DNAs and recombinant vectors described in documents 1 and 2, and do not appear to be novel.

TENT COOPERATION TRE Y

PCT

NOTIFICATION OF ELECTION

(PCT Rule 61.2)

From the INTERNATIONAL BUREAU

To:

Assistant Commissioner for Patents
United States Patent and Trademark
Office
Box PCT
Washington, D.C. 20231
ETATS-UNIS D'AMERIQUE

in its capacity as elected Office

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| Date of mailing (day/month/year) 29 June 2000 (29.06.00) | |
| International application No. PCT/JP99/06309 | Applicant's or agent's file reference 99-F-054PCT |
| International filing date (day/month/year) 12 November 1999 (12.11.99) | Priority date (day/month/year) 12 November 1998 (12.11.98) |
| Applicant SUGAMURA, Kazuo et al | |

1. The designated Office is hereby notified of its election made:

☒ in the demand filed with the International Preliminary Examining Authority on:

12 June 2000 (12.06.00)

☐ in a notice effecting later election filed with the International Bureau on:2. The election ☒ was☐ was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

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| The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No.: (41-22) 740.14.35 | Authorized officer Antonia Muller Telephone No.: (41-22) 338.83.38 |
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